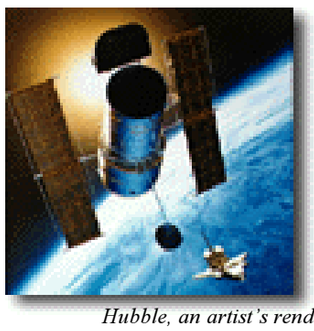
National Aeronautics and Space Administration
Goddard Space Flight Center

Inside Wallops

Wallops Flight Facility, Wallops Island, Virginia | Volume XIX-99 | Number 45 | November 22, 1999

Hubble Telescope Placed Into Safe Hold as Gyroscope Fails

NASA's Hubble Space Telescope was placed into a safe hold at approximately 8:30 a.m. EST on Nov. 13 when gyroscope #1 ceased operation. With only two operational gyros remaining, the science program will be suspended until completion of Servicing Mission 3A, currently scheduled for launch aboard Space Shuttle Discovery on Dec. 6, 1999.



Hubble, an artist's rendition

This gyro situation is not expected to impact the upcoming servicing mission. In fact, anticipation that another gyro could fail was the primary reason that Hubble managers scheduled an early repair mission and split the third servicing mission activities into two flights: Servicing Mission-3A (Dec. 6, 1999) and Servicing Mission-3B (Mid-2001).

The safe-hold mode has been thoroughly tested and used twice since Hubble's launch in 1990. The telescope is not at risk. This protective safe mode allows ground control of the telescope, but with only two gyros working, Hubble cannot be aimed with the precision necessary for scientific observations of the sky.

The safe mode does not require gyros, so even if another gyro should fail in the next few weeks, HST will remain safe, according to project managers. The aperture door has been closed to protect the optics, and the spacecraft is aligned to the sun to ensure adequate power is received by Hubble's solar panels.Engineers are investigating the cause of the gyro loss. The gyro will be returned to ground after the upcoming servicing mission for in-depth analysis.

During Servicing Mission 3A, astronauts will replace all the gyroscopes, a fine guidance sensor, a transmitter, a spare solid-state recorder and a high-voltage/temperature kit for protecting batteries from overheating. Additionally, the crew will install an advanced computer.

Wallops Teacher on Loan, Tony Goodyear, and student experimenters from Parkside High School, Salisbury, recently displayed for the faculty and student body the Suborbital Student Experiment Module (Sub-SEM) payload they flew on an Orion sounding rocket, Aug. 5. Students were invited to sign the parachute (left) used in the payload recovery.

International Science Team to Examine Arctic Ozone

NASA scientists are joining researchers from Europe, Russia, Canada and Japan to mount the largest field-measurement campaign ever to assess ozone amounts and changes in the Arctic upper atmosphere this winter.

This collaborative campaign will measure ozone and other atmospheric gases using satellites, airplanes, heavy-lift and small balloons, and ground-based instruments.

From November 1999 through March 2000, researchers will examine the processes that control ozone amounts during the Arctic winter at mid to high latitudes.

Project scientists will be based above the Arctic Circle at the airport in Kiruna, Sweden. "Arena Arctica," a large hangar especially built for research, will house the aircraft and many of the scientific instruments. Balloons will be launched from Esrange, a balloon and sounding rocket launch facility near Kiruna.

Wallops support will include the launch of four scientific balloons under the direction of Wallops Balloon Program Office.

Message From the NASA Administrator

Health & Safety Topic #3: Federal Worker 2000

In July, President Clinton issued the five-year Federal Worker 2000 Presidential Initiative requiring Federal Agencies to reduce the number and severity of injuries in the Federal work force. The growing number of injuries to Federal employees and the costs associated with them has led the President to take action.

President Clinton stated that "The Federal workforce is a valuable asset to our healthy economy. We need to do more to protect our dedicated public servants from preventable injuries and illnesses..." At NASA, we are leaders in safety and health within the Federal government, with one of the lowest accident rates and one of the most improved rates of workers' compensation costs. But we cannot be complacent. As a team, it is our responsibility to ensure that our valued workforce is not put at risk for accident, injury or illness.

The President also charged all Federal Agencies to ensure "when injuries do occur, Federal employees are given the best possible care and are returned to work as quickly as possible." It is up to us to help our fellow employees when injured. With our help we can restore them to health and bring them back to work. Accidents, big and small, and close calls, causing injury or not, must be investigated promptly. Remember our greatest asset is your dedication, skills, and knowledge. When the President said "I want to make the safety and health of every Federal worker a central value in each operation performed in Federal workplaces," he was calling upon us to take action through caring. At NASA, where safety and health are core values, we can accept no less than to be a world class leader in safety and health and show we care about one another.

The complete text of Mr. Goldin's message and weekly health topics will be available on the NASA web site (http://www.nasa.gov) as well as the Occupational Health web site at http://ohp.ksc.nasa.gov/

Happy Thanksgiving!

Healthy Hints On Line

The Health Unit's newsletter, *Healthy Hints*, is now on-line as part of the GSFC/Wallops Health Line web site. The newsletter has been expanded to include some new features as well as links to other pertinent web sites.

The new web site address is: http://www.wff.nasa.gov/~healthline/wff_health.html. Printouts also are available at the Wallops Health Unit, Bldg. F-160 or by calling x1266.

The NASA Safety Hierarchy

The Agency Safety Initiative (ASI) establishes the NASA safety hierarchy -the order we will use to prioritize our safety efforts. The safety hierarchy is:

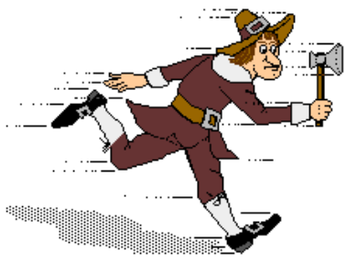
1. Safety for the public. We absolutely must protect the public from harm.

2. Safety for astronauts and pilots, because they expose themselves to risk in high hazard flight regimes.

3. Safety for employees, because we owe it to our employees to provide them with a safe and healthful workplace.

4. Safety for high value equipment, because we are stewards of the public's trust.

By focusing on the safety of NASA's mission and operations, we will improve quality and decrease cost and schedule. Additional information about the NASA Safety Initiative can be found on the following Web page: http://www.hq.nasa.gov/office/codeq/safety/index.htm



Wallops Personnel Attend Ozone Study Meeting

Frank Schmidlin, Observational Science Branch, and Dawn Holdren and Tom Northam, SESI, recently traveled to Sao Jose dos Campos, Brazil, to attend a meeting with other participants of the Southern Hemisphere Additional Ozone (SHADOZ) project.

The SHADOZ project will assess why there is additional ozone residual over the Equatorial Atlantic Ocean vs the Pacific Ocean. SHADOZ involves ten sites located between the Equator and 10 degress South latitude that are making vertical measurements of the ozone.

Ozone soundings are being made from Natal, Brazil, as part of an agreement between NASA and INPE in Brazil. A visit to Natal also was made to discuss the present observational practices employed.

Reserved for Mailing Labels

Why "Buy Recycled"?

Many Americans help the recycling effort by putting recycleables in a bin or taking them to a drop-off center, but many don't realize the importance of purchasing products made from recycled materials.

In order for the materials that have been collected through community and business recycling programs to have value, there must be a demand for recycled products. That demand is created by purchasing products made and/or packaged with recycled paper, steel, aluminum, glass and plastic.

Five Reasons Why We Should Buy Recycled

· Saves Natural Resources. Making products from recycled materials conserves land and reduces the need to drill for oil and dig for minerals.

· Saves Energy - Making recycled aluminum, for example, takes 95% less energy to make than new aluminum bauxite ore.

· Saves Clean Air and Water - In most cases, making products from recycled materials creates less air and water pollution than making products from virgin materials.

· Saves Landfill Space - When the materials you recycle go into new products, they don't go into landfills.

· Saves Money and Creates Jobs - The recycling process creates far more jobs and can frequently be the least expensive waste management method for cities and towns.

Hand Soldering

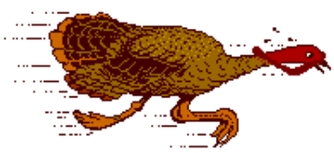
NASA Handbook Certification Training
NHB 5300.4(3A-2)
Dec. 6-10, 1999 (8 hour sessions)
Bldg F-160, Calibration Lab
Instructor: Robert L. Nock

The Hand Soldering course is approved for training personnel to fabricate or inspect space flight hardware in accordance with NASA-STD-8739.3. Videotapes, illustrations, detailed documentation and demonstrations of techniques will be used to explain hand soldering techniques.

Who Should Attend: Employees responsible for fabricating and inspecting space flight hardware.

There is no cost associated with this training. Forward training requests to Sherry Kleckner, Building F-6, no later than Nov. 29, 1999. Class size is limited to five people.

Contractor employees may register by sending a memo to Sherry Kleckner, stating they are interested in taking the training course. The memo must be on company letterhead and signed by the contractor employee's immediate supervisor and contract monitor (ATR/COTR). Contractors are admitted on a "space available" basis.



The Linkage Leadership and Strategy Satellite Series

The New Leadership

Instructor: Warren Bennis
Dec. 1, Wallops TV Channel 6
11 a.m. to 12:30 p.m.

Today's organizations are evolving into federations, networks, clusters, cross-functional teams, and ad hoc task forces - almost anything but top down pyramids. The paradigm of top-down leadership has become obsolete.

Warren Bennis discusses how the "New Leadership" must encompass inclusion and a new kind of alliance between the leaders and the led.

Inside Wallops is an official publication of Goddard Space Flight Center and is published by the Wallops Office of Public Affairs, Extension 1584, in the interest of Wallops employees.

Editor — Betty Flowers
Photography — Optical Section
Printing — Printing Management Office